

# The Life Safety Connection



## New Website



The North Dakota Department of Health is thrilled to launch a new, consumer-friendly website – **health.nd.gov**. New features of the website include an eye appealing design that categorizes similar health topics important to North Dakotans in an easy-to-find format. In addition, consumers

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If you would like to be added to or removed from our mailing list, please contact us at [lsc@nd.gov](mailto:lsc@nd.gov).

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will be able to search in our A-Z topic list OR check for what they're looking for in the Google-powered search bar.

The webpage for the Division of Life Safety and Construction can now be found under the Regulation & Licensure link on the main page. You can bookmark this link for quick access:

**<https://www.health.nd.gov/regulation-licensure/life-safety-and-construction>**

Check it out and let us know what you think or if you see any improvements we can make.

## Main Drain Testing

A main drain test of the automatic sprinkler system is one of the most important tests of the sprinkler system. The main drain test is conducted at the main riser to determine whether there has been any change in the condition of the water supply piping and control valves.

A main drain test is required to be conducted annually, however, in a system where the sole water supply is through a backflow preventer or a

*(continued on page 3)*

# Emergency Power Supply System (EPSS) Replacement Submissions

Every year our division receives numerous "Submissions for Project Review" to replace Emergency Power Supply Systems (EPSS) in facilities. Following our review, a long list of comments is often prepared requesting further clarification. This letter has resulted in owners going back to their electrical contractor and emergency generator supplier to respond to our comments or even employing the services of engineers. These clarifications delay the approval of your project.

Our process begins by consulting the Facility Guidelines Institute (FGI) Guidelines, 2014 edition, which states, "Emergency power shall be

provided for in accordance with NFPA 99, NFPA 101, and NFPA 110: *Standard for Emergency and Standby Power Systems.*" These standards then outline site location, connection to critical and life safety branches, sound control, exhaust, transfer switches, emergency shut-off monitoring and control, etc. Replacing your EPSS is not a simple undertaking.

When the planning process begins for your emergency generator replacement, consider contacting our office. We can describe our expectations for the submission and streamline the process.

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## GFCI Protection

Affects: All Facilities

Ground-fault circuit interruption for personnel must be provided as required in the 2011 edition of NFPA 70, *National Electrical Code*. The GFCI device must be installed at a readily accessible location. GFCI protection is required for 15A and 20A 125V receptacles installed in the following locations:

(A) **DWELLING UNITS** (Residential homes or apartment units.)

1. **Bathrooms**
2. **Garages and Accessory Buildings**
3. **Outdoors:** GFCI protection is required for receptacles installed outdoors. (*Exception: Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment are not required to be GFCI protected.*)
4. **Crawl spaces**
5. **Unfinished Basements:** (*Exception: A receptacle supplying only a permanently installed fire alarm or burglar alarm system is not required to be GFCI protected.*)
6. **Kitchens:** For receptacles that serve countertop surfaces.
7. **Sinks:** Where receptacles are installed within 6 feet of the outside edge of the sink.

(B) **Other Than Dwelling Units** (Hospitals, nursing facilities, basic care facilities and other commercial type buildings.)

1. **Bathrooms**
2. **Kitchens:** For all receptacles installed in a kitchen.
3. **Rooftops**
4. **Outdoors:** (*Exception: Receptacles that are not readily accessible and are supplied by a branch circuit dedicated to electric snow-melting, deicing, or pipeline and vessel heating equipment are not required to be GFCI protected.*)
5. **Sinks:** For receptacles installed within 6 feet of the outside edge of the sink. (*Exception No. 2: For receptacles located in patient bed locations of general care or critical care areas of health care facilities GFCI protection shall not be required.*)
6. **Indoor Wet Locations**
7. **Locker Rooms:** With showering facilities.
8. **Garages**

(C) **Electric Drinking Fountains**

# Fire Watch: What is it and when is it required?

When a fire alarm system is out of service for more than 4 hours in a 24-hour period or an automatic sprinkler system is out of service for more than 10 hours in a 24-hour period, the authority having jurisdiction must be notified, and the building must be evacuated, or a fire watch must be provided for those areas of the building left unprotected by the shutdown until the fire alarm system or sprinkler system has been returned to service.

A fire alarm or sprinkler system might be shut down for any number of reasons. Some shutdowns are preplanned, controlled, and of short duration, such as during periodic testing and maintenance. Others might be preplanned and of longer duration, such as during times of building or system rehabilitation. Emergency shutdown of the system can be the result of power failure, fire, or other physical damage and might result in a short or lengthy shutdown to repair the system.

Continued occupancy of a building that has a fire alarm system impairment of more than 4 hours cumulative within any 24-hour period or a sprinkler system impairment of more than 10 hours cumulative within any 24-hour period can be tolerated only if a fire watch is provided. Such lengthy impairments generally indicate a situation that involves a problem more serious in nature than typical system maintenance or testing. Fire department notification of sprinkler system impairment is also crucial, because fire-fighting tactics will vary, depending on whether the system is operational.

The term *out of service* is intended to imply that a significant portion of the fire alarm system or sprinkler system is not in operation. A fire watch should be implemented any time a system or a significant portion of a system cannot operate as intended. It is important to note the requirement to implement a fire watch applies regardless of the nature of the impairment and is triggered by the amount of time the system is impaired. The requirement for a fire watch applies when the sum

of all outages in a 24-hour period exceeds more than the minimum 4-hours or 10-hours.

A fire watch should involve some special action beyond normal staffing, such as assigning additional personnel to walk the areas affected. Such individuals should be trained in fire prevention, in occupant and fire department notification techniques, occupant evacuation procedures in an emergency, and understand the fire safety situation. Personnel conducting the fire watch must regularly and thoroughly check all parts of the building affected by the impairment. This includes attics, storage rooms, crawl spaces, resident and patient rooms, employee break rooms, and any concealed spaces. Given this, it is important that those conducting the fire watch be familiar with the building and equipment. In addition to the facility's fire emergency plan, personnel should know where manual fire alarm stations and fire protection equipment are located and be able to use them if necessary.

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## Main Drain Testing (cont'd)

pressure reducing valve, the main drain test of at least one system downstream of the backflow device must be conducted quarterly. Also, any time a control valve is closed and reopened at the system riser, a main drain test must be conducted.

It is a good idea to understand your automatic sprinkler system even if an outside vendor is doing the maintenance testing of the system. That way you can be sure the required testing is being done. Be sure to document dates and who completed the testing for the system and get a full report from any vendors working on your sprinkler system. If you are conducting the quarterly flow tests in-house, be sure you are conducting all the required tests and documenting your findings.

# Construction Separation

NPFA 241, *Safeguarding Construction, Alteration, and Demolition Operations*, requires that protection is provided to separate an occupied portion of the structure from a portion of the structure undergoing alteration, construction, or demolition operations when such operations are considered as having a higher level of hazard than the occupied portion of the building.

The separation wall assembly must be built from the floor to the floor or roof assembly above and from outside wall to outside wall. All doors in the wall must have a 45-minute fire-rating and be self-closing or automatic-closing with fire-rated hardware. All penetrations through the fire-rated walls, floors, and ceiling assemblies must be sealed with an approved fire-rated assembly.

If you have active automatic sprinkler and fire alarm systems, nonrated walls and opening

protectives are permitted. All sprinklers must be turned into the correct position. If any sprinkler is obstructed, it must be moved, or additional sprinklers added to the existing system. If sprinklers are added to the system, you will need to make sure the system will allow for these additional sprinklers. Also, you must have an active fire alarm system in place. Smoke detectors may be covered up during working hours, but the covers must be removed at the end of the working day.

If it's not possible to provide a fire-rated separation or an approved automatic sprinkler system with a nonrated separation, a fire watch must be conducted.

Whichever one your facility chooses must be implemented until completion of the renovation or addition project.

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## Combustible Decorations on Walls and Ceilings

Affects: Hospitals and Nursing Facilities

In the past, facilities had to manage decorations and keep track of the flame-retardant documentation, which was a challenge for most facility managers. However, with the changes in the 2012 *Life Safety Code*, Section 18/19.7.5.3 explains how decorations may be displayed if they are not flame-retardant and don't meet NFPA 701 or NFPA 289.

1. Combustible decorations are permitted to be attached to walls, ceiling, and non-fire-rated doors as long as the decorations do not interfere with operation of the doors.
2. Combustible decorations may not exceed 20 percent of the wall, door, and ceiling areas inside any room or space of a smoke compartment that is not fully protected by sprinklers.
3. Combustible decorations may not exceed 30 percent of the wall, door, and ceiling area inside any room or space of a smoke

compartment that is fully protected by sprinklers.

4. Combustible decorations may not exceed 50 percent of the wall, door, and ceiling area inside patient sleeping rooms having a capacity of no more than 4 patients, in a smoke compartment that is fully protected by sprinklers.

When calculating the percentage of area of the wall or ceiling covered by decorations, you will calculate only the wall sections or ceiling sections that are used by the decorations. Decorations must be located so they don't interfere with the operation of any door, sprinkler, smoke detector, or any other life safety equipment.

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## Newsletter Ideas

If there is a topic you would like to see addressed in future editions of this newsletter, please email us at [lsc@nd.gov](mailto:lsc@nd.gov) and we will consider your submission for future publication.